

hollow member with a fluid, and (3) creating a single shock wave within the fluid to rapidly expand the hollow member into conformance with the die cavity. Then, second, third, and fourth vehicle frame members are provided. Lastly, the first vehicle frame member and the plurality of second vehicle frame members are secured together to form a vehicle frame assembly.

The Kosaka reference is non-analogous art to the claimed invention and to the Marando reference. Therefore, the disclosure of the Kosaka reference should not be considered at all when evaluating the patentability of the claimed invention. As set forth in Section 2141.01(a) of the MPEP, a reference must either be (1) in the field of the applicant's endeavor or (2) reasonably pertinent to the particular problem with which the inventor was concerned. With respect to the latter test, a reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.

With respect to the first leg of this test for analogous art, the field of the Kosaka reference (namely, methods of simultaneously forming a plurality of sheet-metal or tubular workpieces into the same or different shapes or configurations) is quite different from the fields of both the Marando reference and the claimed invention (namely, methods of manufacturing vehicle frame assemblies having hollow members). Thus, the field of the Kosaka reference is clearly not within the field of the claimed invention. With respect to the second leg of this test for analogous art, the problems addressed by the Kosaka reference (namely, the time involved in readjustment of electrodes upon every feeding and unloading of a workpiece into and out of the machine and the inefficiency of a single shot of discharge obtaining only a single product) are quite different from the problems addressed by the claimed invention (namely, the manufacture of tubular metal vehicle frame components by a hydroforming process that permits greater expansion capabilities of the metal). Thus, the Kosaka reference is clearly non-analogous art to both the claimed invention and to

the Marando reference and, therefore, should not be considered at all when evaluating the patentability of the claimed invention.

Even if the Kosaka reference is considered, the teachings thereof cannot be properly combined with the teachings of the Marando reference. The Marando reference discloses a method of manufacturing a vehicle frame assembly that can include the use of hydroforming. The Kosaka reference, on the other hand, relates to a method of simultaneously forming a plurality of sheet-metal or tubular workpieces into the same or different shapes or configurations. Because the teachings of the two references are so diverse, there would have been no motivation for a person of ordinary skill in the art to combine them in the manner suggested by the Examiner. There is simply no disclosure whatsoever contained in the Kosaka that the method disclosed therein can or should be used in the manufacture of a vehicle frame assembly. Thus, it is believed that new independent Claim 13 defines the invention over the combined teachings of the Marando and Kosaka references.

The Examiner also rejected independent Claim 13 as being obvious in view of the combined teachings of the Marando and Hodgson references. This rejection is also respectfully traversed. Like the Kosaka reference, the Hodgson reference also relates to an apparatus in which pressure is used to deform a tubular piece of material. For many of the same reasons set forth above in connection with the Kosaka reference, it is believed that new independent Claim 13 defines the invention over the combined teachings of the Marando and Hodgson references.

Respectfully submitted,



Richard S. MacMillan
Reg. No. 30,085

MacMillan, Sobanski & Todd, LLC
One Maritime Plaza, Fourth Floor
720 Water Street
Toledo, Ohio 43604
(419) 255-5900